

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012929**Date Inspected:** 05-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Bernie Docena and Tom Pasqualone			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Orthotropic Box Girder		

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG L2E/L3E plate 'E2' (5270 to 7880mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 and Mitch Sittinger perform CJP groove (splice) welding fill to cover pass. The welder was observed welding in the 3G (vertical) position utilizing an automatic dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3042A-1. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degree Fahrenheit using electric resistance heating bands prior welding. During welding, ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters of the welder. QA performed parameter readings during welding with the following results; 250 amperes, 25.5 volts and 260mm per minute travel speed which are deemed acceptable to contract specifications. The location where the welders were working was completed except for some touch up weld to fill low spots and grinding where the weld reinforcement was more than the allowed. After completing these mends, welders will be moving to the same plate but in higher weld location which is E1.

At OBG L3E/L4E plate 'D' inside, two ABF welders were noted welding manually at two different locations. One was welding at location 0mm to 760mm while the other welder was noted at location 2850mm to 4250mm. QA randomly observed the two welders perform Complete Joint Penetration (CJP) welding fill pass. The welders Chun Fai Tsui (ID # 3426) and James Zhen (ID # 6001) were noted welding in the flat (1G) position utilizing an

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semi-automatic dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1. The joint being welded has a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degree Fahrenheit using electric resistance heating bands with alternate propane gas torch prior welding. During welding, ABF Quality Control (QC) Tom Pasqualone was noted monitoring the welders and parameters of the welder. QA performed parameter readings during welding with the following results; 237 amperes, 23.5 volts for welder #3426 and 231 amperes, 22 volts for welder #6001. Welding parameters noted were deemed acceptable to contract specifications.

At OBG L2E/L3E plate 'D' inside, QA noted ABF QC Jesse Cayabyab and Jim Cunningham perform Ultrasonic Testing (UT) of the completely welded splice butt joint.



Summary of Conversations:

As stated above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

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Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer